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AUTHOR Fabiano, Emily S.
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ABSTRACT

This study investigated the effects of reading stories depicting older-adult characters on the attitudes of fourth-graders toward older adults. Attitudes were measured by means of a semantic-differential attitude scale constructed for this purpose. One hundred five students from five fourth-grade classes were randomly assigned to two experimental groups and one control group. The attitude scale was administered to all groups as a pretest. The first experimental group was exposed to five stories (reading silently while hearing the stories on tape) with positive, active older-adult characters. The stories were discussed with emphasis on the active-versus-passive roles of the older adult characters. The second group had the same exposure to the stories without any discussion following. The control group had no contact with the stories at all. Comparison of posttest scores and pretest scores indicated that the presentation of stories with older-adult characters, designed to influence attitudes, was not successful in effecting any significant change in fourth-graders' attitudes toward the older adult. The children's attitudes toward older adults appeared neutral or positive rather than negative. (Author/MKM)

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EFFECTS OF READING STORIES ON CHILDREN'S ATTITUDES TOWARD OLDER ADULTS

AN ABSTRACT OF A THESIS

SUBMITTED TO THE FACULTY

OF THE GRADUATE SCHOOL OF EDUCATION

OF

RUTGERS

THE STATE UNIVERSITY OF NEW JERSEY

BY

EMILY S. FABIANO

IN PARTIAL FULFILLMENT OF THE

REQUIREMENTS FOR THE DEGREE

OF

MASTER OF EDUCATION

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NEW BRUNSWICK, NEW JERSEY JANUARY, 1977

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ABSTRACT

This study investigated the effects of reading stories with older adult characters on the attitudes of fourth-graders toward older adults. Attitudes were measured by means of the Scale for the Measurement of Children's Attitudes Toward Older Adults, a semantic-differential attitude scale constructed for this purpose.

The hypotheses stated that there would be no significant differences in scores on the Scale between treatment and control groups nor between males and females within those groups.

One hundred five students from five fourth-grade classes were randomly assigned to two experimental groups and one control group. The Scale was administered to all groups as a pretest. Subsequently, the first experimental Group (A) was exposed to five stories (reading silently while hearing the stories on tape) with older adult characters. The stories were discussed with emphasis on the active versus passive role of the older adult characters.

The second Group (B) had the same exposure to the stories without any discussion following. The control Group (C) had no contact with the stories at all.

All groups were posttested with the semantic differential Scale.

Responses for each scale item were weighted 1, 2, 3, 4 and 5 and reported as raw scores and mean scale scores for each subject and mean response scores per item for each group.

Pretest scores were analyzed to control for the sex variable which appeared significant in the data acquired in the pilot study. However, no significant difference between females and males was found when the t-test was performed on pretest raw scores for subjects in the final study.

Posttest scores were analyzed with a one-way analysis of variance to expose any significant differences between experimental and control groups. The test statistic, $F=1.45$ was not significant at $p<.05$ level. The null hypothesis of no significant differences between experimental and control groups was not rejected.

To determine any significance in change/no-change of responses to items from pre- to posttest, the McNemar Test for Change, a form of chi-square, was applied. All ten items subjected to this analysis were rejected as not significant since they did not exceed 7.815 at the $p<.05$ level.

The results of the study seem to indicate that the presentation of stories with older adult characters, designed to influence attitudes, was not successful in effecting any significant change in fourth-graders attitudes toward the older adult.

The data obtained from administration of the Scale seem to imply that children between the ages of 8 and 10 are neutral to positive in their attitudes toward older adults; this attitude seems firm and implanted. This is in contrast to the few studies dealing with children's views of the older adult which report stereotyped attitudes of the elderly.

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APPROVED: Joseph Zelnick
Joseph Zelnick

William B. Gillooly
William B. Gillooly

Kenneth D. Carlson
Kenneth D. Carlson

DEAN:
Milton Schwebel

To my parents and all older adults

whose lives have inspired ours

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CHAPTER I

INTRODUCTION

Considerable research in recent years has focused on the effects of various life experiences on certain social values, attitudes and stereotypes which become internalized and persist through life. Much of the research has investigated the possible relationships between early experiences and the racial and ethnic attitudes and sex-role discriminations characteristic of many adults (Oliver, 1974; Schneyer, 1969). One area still open to investigation, however, are the relationships of early experiences with attitudes toward the older adult.

A universal experience common to children is school attendance and generally, exposure to textbooks and curriculum material used in the traditional transmission of knowledge and skills. Reading textbooks, aside from their apparent academic function in the learning process, have been shown to be vehicles for transmitting social values and attitudes to children (Frasher, 1972). Hickey and Kalish (1968) maintain that self-concepts of the young are influenced by the sex and minority role concepts in their early reading experiences. In the same manner, a youth's perception of future roles (i.e., those

entered into in maturity) may be influenced, in part, by his early learning and reading.

While there have been studies which examined the attitudes of children toward the older adult (Kogan & Shelton, 1962; Hickey, Hickey & Kalish, 1968), none has examined the possibility that these attitudes may be influenced by the reading material a child is exposed to in elementary reading textbooks.

Statement of the Problem

Our society has tended to stereotype the elderly as dependent, generally in poor health, irritable, inflexible, etc. (Tuckman, 1953). The pendulum is shifting to less discriminating images in the literature, but unfortunately, until the last two or three years, these images were standard. It would seem that exposure to such stereotypes would likely influence children's attitudes to both "old age" and the older adult.

The primary purpose of this study is to answer the following question:

> What is the effect, if any, of reading stories with older adult characters on children's attitudes toward this older age group?

Hypotheses

It is hypothesized that:

1. There will be no significant difference in scores on the Scale for the Measurement of Children's Attitudes Toward Older Adults between experimental and control groups.
2. There will be no significant difference between sexes on scores for the Scale for the Measurement of Children's Attitudes Toward Older Adults between experimental and control groups.

Definition of Terms

Older adult. This term is used with the 62-and-over population in mind, with the assumption that they are generally no longer in the work force.

Importance of the Study

The rapidly increasing numbers of older adults in our country, according to the last two censuses, have come upon us suddenly and, as demographic predictions declare, will continue to increase.

The implications of extended life-expectancies for the field of education are forcing movements in two directions under what Grabowski and Mason (1972) distinguish as Education "for," not education "about" Aging: 1) toward organizing lifelong learning programs for

older adults now and 2) toward educating all ages to break away from the traditional negativism about this life period.

Jacobs (1972) asserts the importance of making available reading materials, for early experiences, that will educate about aging without stereotype and with greater sensitivity.

The results of this study may bring to light the effects of a pervasive source of role information (the elementary reading textbook) on the attitudes of children toward older adults. If the results substantiate the hypothesis, it will call attention to the necessity of the writers and publishers of reading texts being more sensitive and realistic in their portrayal of older adults and old age in general.

Limitations of the Study

In most studies concerned with attitude measurement, some general limitations are common: subjectivity in item selection and analysis, failure to measure unidimensional nature of responses and others. This study shares those limitations.

In surveying reading texts to locate pertinent story material, a special effort was made to obtain a representative list of reading texts used widely in the United States; material used in this study, however,

may not necessarily represent a national sampling.

The survey of reading texts was not intended to be a thorough content analysis but just a survey to select appropriate stories for the treatment groups. The criteria for the selection of stories are subjective and would probably vary with other selectors.

No attempt was made to analyze children's responses to illustrations in the stories used. The consensus seems to be that pictures can influence attitudes (Samuels, 1970). Some illustrations included in stories used for this study are obviously stereotyped but no effort was made to study children's responses to these.

Overview of the Study

Since there is a scarcity of information on children's attitudes toward the older adult, in reviewing the literature it was necessary to search related areas of education and aging, general attitudinal studies and studies of all-aged groups' attitudes toward the older adult.

Chapter III describes the criteria for selection of stories for the treatments, the construction of the attitude scale and pilot study of the same and the process of data collection.

Chapter IV will discuss the results. Chapter V will summarize the study and explore implications for future research.

CHAPTER II

REVIEW OF THE LITERATURE

This review of the literature on the effects of children's reading on attitudes toward older adults was guided by the following considerations:

1. Children's attitudes toward the older adult
2. The attitudes of young people and older adults toward older adults
3. Measuring attitudes toward older adults
4. The semantic differential as a measuring technique
5. The effects of reading on attitudes
6. The image of the older adult in children's literature

Attitudes of Children Toward Older Adults

Very limited exploration has been made into the feelings of young children toward older adults. The few studies located reveal that children are really ambivalent about their views on older adults; they think older adults are good, kind, etc. but still consign them to the stereotyped role of being sick, tired, wrinkled, etc.

An initial investigation of children's reactions was made by Hickey et al. (1968) who asked 208 third graders to write an essay about "an old person like your grandparents." The content of their paragraphs was analyzed and classified according to Physical and Social dimensions. In addition, differences caused by economic status and religion were explored; sex differences were not explored. The authors concluded that 8-year old children have already begun to develop concepts of what old age is and attitudes toward old people. Many of the responses listed under Physical Characteristics substantiate the stereotyped responses of older subjects in Tuckman and Lorge's study using their Old People Questionnaire (1953). Both studies were used in the development of the instrument for this study.

The authors constructed a 20-item questionnaire based on the paragraph responses and taped interviews with other 8-year old children. The same questionnaire was administered to third graders, junior-, senior-high and college students with directions to respond to these age referents: 25-, 45-, 65-, and 85-year old individuals. Respondents were asked to evaluate these age groups on five characteristics, totaling 20 items. Two hypotheses were confirmed: Children and young people do perceive age-related differences between adult age groups and the older the adult, the less pleasant the image of him/her

held by the child or young adult (Hickey & Kalish, 1968).

A recent year-long study (Jantz & Seefeldt, 1975) into children's attitudes toward the elderly concluded that children have stereotyped attitudes about the elderly. Paradoxically, the 180 children from 8 to 11 years, also see old people as friendly, good, kind, etc. The as yet unpublished findings were arrived at through interviewing, word-association tests and picture tests.

The accuracy of studies of young children's perceptions of older adults has been questioned in light of children's ability to discriminate between age groups. Yet, children's responses to pictures of people of different apparent ages have been used with success (Britton & Britton, 1969; Looft, 1971) to evaluate children's accuracy in determining age-size correlations. Their ability to discriminate increases steadily with the older (11 years) children ordering more correctly and frequently.

The concept of "grandparenthood" from the perspective of children 4-5, 8-9, 11-12 was examined by Kahana(1968). He found that children's views of grandparents paralleled their developmental cognitive changes. Concrete views of grandparents in terms of specific physical characteristics were shown by the youngest age group. These were replaced by functional (useful, active) views of behaviors by children in the middle group and

by an abstract interpersonal orientation among the oldest children.

The most comprehensive review of research methodologies and findings on perceptions of old people was compiled by McTavish in 1971. No studies of children's attitudes toward older adults were reported.

Although investigations with all age groups are important to this area of attitude study, brief attention is next given to the young and older adults' views on being an older adult.

Attitudes of Young Adults and Older Adults

The two groups who seem to be the most critical toward the period of old age are the young adult and the older adult (Hickey et al., 1968). Various explanations for this tendency are offered by investigators.

Lane (1964) interprets the attitude of youth toward older adults as neutralism rather than negativism. A student population of 400 high school and college youths responded to the Tuckman-Lorge Old People Questionnaire with generally favorable attitudes and relatively few responses in the extreme categories of very favorable or unfavorable. The implication of this apparent neutralism of youth toward the elderly is that older adults are being "tolerated" by youth rather than being "accepted."

Kalish (1969) sees youth as in the same bind (stereotyped) as the older adult. He found that the same values that discriminate against the old also discriminate against the young: productivity, achievement, material gain, independence, hard work, intellectual capacity, education and scientific and technological sophistication.

There seems to be an inclination for both these groups to view themselves objectively rather than subjectively in commenting on a group of which they are part.

The undergraduates, in a study by Calhoun (1964), responded to a semantic differential-type attitude test on the concepts of "young people" and "old people." They were more positive in their responses to adjectives where young people are usually rated as negative.

Kogan and Shelton (1962) found that the similarities between the responses of the older and younger subjects exceeded the differences; the responses to a sentence completion measure of attitudes toward "old people" were considerably more favorable than non-favorable.

The question arises about whom the older individual identifies as "old." A general trend noted in studies with older adults (Kutner, 1956; Perlin & Butler, 1962; Zola, 1962) is that many elderly people do not

classify themselves as old. Kastenbaum (1964a) reports that somewhere between 30-80% of persons in retirement range do not consider themselves to be old. It seems, then, that their responses would be similar to younger age groups viewing older people.

Measuring Attitudes Toward Older Adults

A variety of approaches have been used in the assessment of attitudes toward the older adult: Likert-type scales, questionnaires, open-ended questionnaires and the semantic differential.

A landmark in the measurement of attitudes toward old people was the development of the Tuckman-Lorge Old People Questionnaire (1953). The questionnaire consisted of 137 "yes-no" items describing stereotypes and common misconceptions of older people. Extensive research for the material for these statements was obtained through interviews, discussions with professionals working with the aged, case records of the elderly and a review of the literature. The instrument has been applied to a number of age and occupational groups, intact, as well as in modified form (Axelrod & Eisdorfer, 1961; Golde & Kogan, 1959; Lane, 1964; McTavish, 1971).

Semantic Differential as a Measurement Technique

The semantic differential technique, essentially a rating scale, has been used to structure the attitude

domain toward older people for the purpose of assessing those attitudes (Calhoun, 1964; Kastenbaum, 1964b; Rosencranz, 1969).

In using a semantic differential, concepts relevant to the domain being studied are selected and defined in terms of bipolar adjective scales. The Ss place concepts in positions along the lines joining the bi-polar adjectives (Maguire, 1973). A factor analysis is usually applied to determine dominant dimensions characterizing the attitude measure, e.g., instrumental/ineffective, autonomous/dependent (Rosencranz, 1969).

Since its development, the semantic differential technique has found an important place in educational research methodology to measure the connotative meaning of concepts and for structuring some attitude domains (Maguire, 1973).

Osgood's (1957) original list of 50 adjective pairs has been used continuously with a wide range of application. Norms have been collected on these scales for 360 words as concepts (Jenkins, Russell & Suci, 1958). An examination by the writer found that the concepts "old people," "elderly" or "aged" were not included in these 360.

Highly acceptable levels of reliability have been reported when the technique is used with adults (Osgood, 1957; Kogan, 1961) and with college-age students

(Calhoun, 1964; Rosencranz & McNevin, 1969) to measure the dimensions of attitudes toward older adults.

The application of the semantic differential technique to investigations of concepts with children has been somewhat neglected (Oles, 1973). When used, it has been described as a fairly reliable technique for elementary school-aged children (DiVesta & Dick, 1966; Maltz, 1963; Williams, 1972).

DiVesta (1966) found the child's use of the semantic differential to be similar to that of adults and therefore conducted comparisons of measures of semantic meaning over a wide age range. His attempts to norm the semantic data with young children have explored numerous concepts; ratings toward the concept "older adult" have not been included in these studies.

In studying children's use of the semantic differential, some relationships between response preferences and sex have been established for childrens' conceptualization of their sex-role (DiVesta, 1966; Long, 1968). Since the semantic differential has not been used to measure children's conceptualization of the older adult, there has likewise not been any attempt to correlate the sex variable with response preferences to the concept.

Remmers, reporting on "Rating Methods in Research on Teaching" in the first Handbook of Research on Teaching

(1963), regards the semantic differential as a measuring device that is flexible, widely applicable, simple to administer and in accord with many criteria of an acceptable measuring device.

Effects of Reading on Attitudes

Research focusing on the effect of reading on children's attitudes has been reported by Kimmel (1970) and Schneyer (1969); both find that objective studies of the affective qualities of children's literature are sparse, scantily supported by research, and sometimes contradictory.

One study on the effects of stories on students' attitudes toward darkness, for example, demonstrated no significant effect on first graders' attitudes (Neill, 1969), while another reported a significant reduction in first graders' fear of the dark (Webster, 1961). The sample in the latter study listened to stories which were followed by a discussion period. These findings suggest that reading stories containing material designed to influence attitudes, followed by discussion and reaction, can indeed produce changes in children's attitudes (Schneyer, 1969).

The effect of children's reading on their prejudices has been the subject of much discussion in print but little empirical research (Kimmel, 1970). Fischer's

(1968) study demonstrated that reading and reading plus discussion contributed to changes in children's attitudes toward American Indians.

Selected stories portraying blacks in a "favorable" manner were read to kindergarten children (Walker, 1971) and by junior-high students (Jackson, 1944). The young children's attitudes were not modified, although there was a trend by the older group toward more liberal attitudes.

Image of the Older Adult in Children's Literature

The area dealing with the image of the older adult in children's literature has not been surveyed with the exception of a study by Seltzer and Atchley (1971) which examined the concept of the older adult in children's literature from 1870-1960. Reading textbooks were not included in the examination. An analysis was made of changes in descriptions of old people and things, compared with young people and new things in children's literature from 1870 to 1960. Using content analysis, frequency counts and a semantic differential, the study reported decreasingly positive attitudes toward older people and things, but not so marked as had been anticipated. The difference was statistically significant for the year 1870 only.

Ansello (1976) is presently conducting research on stereotypes of older adults as they appear in children's literature. As a result of his yet unpublished study, Ansello found that older people were generally omitted from or cast in passive roles in the 549 children's books he examined. The words "old, little and ancient" accounted for more than 80% of the adjectives used to describe older adults in these books.

A review by this writer of more current reading textbooks revealed that the image of the older adult has become somewhat more positive in assuming active roles. Specific instances where older adults were actively portrayed were extracted from those textbooks for use in this study.

Summary

The research suggests that "old people" and "old age" are meaningful, value-laden concepts which influence the perceptions of older people held by old and young respondents (McTavish, 1971).

The results of many studies on old-age perceptions, held by the various age groups surveyed, are disappointingly inconclusive. Research is obviously lacking in the area of studies about children's attitudes toward the older adult.

The considerable ambivalence and neutralism of those perceptions held by young people (Golde & Kogan, 1959; Lane, 1964) and the contradictory self-concept of older people (Kastenbaum, 1964a; Shelton & Kogan, 1962), would suggest approaching the findings on perceptions of aging with caution.

Interestingly, it appears that most of the studies' results reflect attitudes about the prospect of aging and old-age, rather than actual attitudes toward older persons themselves (McTavish, 1971).

Some useful psychometric techniques have been developed to study attitudes toward the older adult (McTavish, 1971). As with measurement techniques in other areas in the social sciences, questions are raised about the reliability and validity of results obtained using methods of attitude measures.

Some research seems to show that initial attitudes can be affected by the use of selected reading and discussion (Schneyer, 1969; Fischer, 1968) as used in this study.

Innumerable studies have examined reading texts in terms of their stereotyping minority and/or sex-roles (Annelli, 1972; Frasher & Walker, 1972; Graebner, 1972; Oliver, 1972; Waite, 1968). There are some scientists and gerontologists who regard the position of old people in our society as in a "minority group" status (Barron,

1953; Drake, 1958; Kogan, 1961). Yet, only two studies were uncovered which examined the image/role of the older adult and that was in children's literature-trade books and not in textbooks.

CHAPTER III

PROCEDURES

This study was concerned with ascertaining the effects of reading stories with older adult characters on children's attitudes toward this older age group. A semantic differential-type test was constructed to measure the effects.

In this chapter, the procedures are described for the construction of the instrument and its pre-testing with a pilot group, the selection of stories for the treatment groups, the selection of subjects, the administration of the Scale and analysis of data.

The study was conducted during three weeks of school in February 1976.

Construction of Instrument

In order to measure any significant changes in children's attitudes in this study, it was necessary to construct an instrument to measure those changes. Although various instruments were located which measure adults'attitudes toward older adults, none was found to measure children's attitudes toward older adults.

A semantic differential-type test was constructed for this study because the investigator felt that its simplicity and limited verbal content are essential considerations for the population studied.

Format of the Semantic Differential

A semantic differential consists of a number of graphic rating scales with opposing or bi-polar adjectives at each end to describe a particular concept. The subject "rates" a concept by marking one of the spaces or lines between poles to illustrate the strength of his/her response.

To apply the semantic differential to the elementary school children in this study, some modification of Osgood's (1957) original device was necessary.

The major change made was the use of a five-step scale as opposed to the usual seven-step scale to simplify the choosing of alternatives for the children while maintaining a distinction of responses. Values 1, 2, 3, 4 and 5 were assigned to each gradient from the positive (5) to the negative (1) pole.

In addition to adjectives, noun and verb forms were used in some pairs to describe stereotypes more explicitly, e.g., resting/working. Adjective pairs are used for most semantic differential scales.

Scale Selection

The scales for this semantic differential test were derived from : 1) a partial selection of Osgood's (1957) original list of 50 pairs; 2) the items on the Tuckman-Lorge (1953) Old People Questionnaire; and 3) the observations which resulted from the Hickey, Hickey and Kalish (1968) third-grade study on "Perceptions of Old People."

The children's responses in the Hickey study were classified under two major dimensions, Physical and Social. Many responses under these substantiated the stereotypic descriptions of older people in the Tuckman-Lorge questionnaire. A third dimension, which the investigator labeled Psychological, was selected to categorize further those concepts appearing on the Tuckman-Lorge questionnaire which are representative of the attitude domain being measured and yet appropriate for children.

Rating scales were classified under:

Physical: ambulatory, visual and auditory, hair and beard differences, skin deterioration, general feebleness

Social: kindness/meanness, loneliness, leisure time, activities, cleanliness

Psychological: attitude toward the future and present, eccentricity, insecurity,

personality traits, mental deterioration

Other areas such as political preferences, sex, etc., defined in the Tuckman-Lorge instrument, were not considered appropriate for measurement with this age group.

Scale Development

To insure adequate coverage of the semantic space for the concept of "older adult" measured, a total of 70 bi-polar descriptive word-pairs were compiled. Care was given to choosing word pairs that were strict opposites and at the same time common and familiar to fourth-grade children. The original scale can be seen in Appendix A.

Carroll's (1971) American Heritage Word Frequency Book was searched for each of the words used in the rating scales. All 138 words were entered in the frequencies list of word types assigned to third and fourth-grade words. For the fourth-grade level, approximately 80% of the vocabulary used was listed with 0-300 frequencies assigned. These frequencies imply that the vocabulary used in the Scale should be appropriate for the fourth-grade popuiation used in the study.

In Other Words, A Beginning Thesaurus (Greet, 1968) was used as a reference in developing opposites. The Thesaurus is intended for third and fourth-graders

and contains approximately 1000 synonyms and antonyms for words commonly used by this age group.

Polarity of the scales was randomized; the positive and negative end positions of each scale were alternated. Reduction of response set was attempted in this way as well as with the interspersion of neutral pairs in the scales, e.g., red/green, up/down. Eight neutral scales were used.

Pilot Study

A pilot study of the Scale for the Measurement of Children's Attitudes Toward Older Adults was conducted by administering the Scale to fourth-graders in a Los Angeles public school with a predominantly Mexican-American population (40%) and to a group of 25 fourth-graders from a suburban, middle-class population in New Jersey.

Specific directions were given to teachers for oral administration of the test.

Examination of Data

These observations were made after tabulation of responses:

1. There was a tendency for Ss to use extreme response positions. 50% of the total number of responses appeared in the extreme "favorable" position (5) and 22% in the extreme "unfavorable" (1) position.

2. Of the eight neutral pairs included in the Scale, only two appear to be neutral, with at least 50% of the total responses made by subjects in the 3 or neutral position.

3. The descriptive pairs receiving the most responses at the "unfavorable" extreme negative pole of the continuum relate to the interests of and active/passive behaviors of the older adult, e.g., slow/fast, indoors/outdoors.

4. Although two different socio-economic groups were used as subjects, there appeared to be no pattern of response preferences for either group. Mean scores did not appear significantly different.

5. It seemed that responses made by subjects may be related to the sex of subjects. Generally, boys preferred responses near or at the positive pole whereas girls preferred responses at or near the negative pole.

Analysis of Data from Pilot Study

On the Scale for the Measurement of Children's Attitudes Toward Older Adults, each of the bi-polar pairs was scored along a five-point continuum. One point was assigned the left (negative) pole, five points to the right (positive) pole, three points for the neutral (middle) position and two and four points to the inner positions. Scores were calculated by summing ratings

over scales for each individual.

Mean scale score values for individual Ss ranged from 2.30 to 4.52. Total mean scale score value for the 59 Ss was 3.51. The mean score for male Ss was 3.62 and for female Ss 3.13.

Test Refinement

An examination of test responses and data suggested reduction and refinement in test scales. Test length was reduced to 20 rating scales using the following criteria:

1. Items that were non-neutral yet heavily scored in the neutral space (3) were eliminated. These were probably obscure or indefinite, eliciting responses in the neutral or "safe" position.

2. Items with 75% or more responses in the extreme positive (5) space were eliminated; the stories would not affect these items since they were already "set" as very positive.

3. The predominant responses in the extreme (1) negative space were in the realm of active versus non-active dimensions or descriptive in nature. Items dealing with these dimensions were retained.

In addition to test reduction and refinement, a change was made in the format of the test. To increase clarity, the words "very" (positions 1, 5), "a little"

(positions 2,4) and "neither" (position 3) were added to the top of the test page to further define alternatives.

Selection of Reading Materials

The reading series to be surveyed for stories were selected from the collection of reading texts available in the Learning Resource Center of the Graduate School of Education, Rutgers University. The LRC houses representative samples of textbooks used nation-wide in all subject areas, including reading.

The third and fourth grade texts of ten reading series, recently published, were examined. Five stories with active, major, older adult characters were chosen.

The following criteria were followed in selecting stories to be read in this study:

1. The older adult(s) appeared as a major character in the story. Major character was defined as one of three characters who is active as a protagonist in the story versus a passive character who stands by or looks on while others participate.

2. The older adult did not appear in a stereotyped role: grandma knitting in a rocking chair only or the grouchy, poor, old farmer.

3. Personality traits regarded by our society as positive and desirable were attributed to older adults as well as other story characters.

4. The stories were not above a fourth-grade level of reading difficulty.

The stories finally selected were duplicated for use with the subjects. Each story was approximately 500-600 words in length. Recordings were made of each story to be used with treatment groups as they read the story silently; this would help control for differences in reading levels. To insure standardization of directions, instruction and discussion (Group A only) procedures were written for each story, including a purpose for reading, questions for an oral comprehension check and discussion questions. The questions developed were identical for each story; they were constructed by following the criteria used to select stories to draw attention to the older adult characters.

Appendix B contains annotations of the story selections used in the study and Appendix C the discussion questions used with Group A following each story.

Selection of Subjects

The subjects participating in this study were fourth-grade children in a North Brunswick, New Jersey, elementary school. They ranged in age from 8 to 10 years.

The suburban community surrounding the school is comprised of single-family, mostly development housing. The population consists of middle-class families with

predominantly professional and blue-collar business people as heads of household. At one time, the few recreational lakes in the area attracted vacationers to what was a resort-type community.

The subjects were tested in June of 1975 with the Gates-McGinite Reading Test, Form Primary C and CS; grade scores ranged from 2.1 to 5.3. The school has not administered achievement or intelligence tests for several years.

The three groups used in the study were formed through a random assignment method. All 117 subjects' names were pooled; as each name was drawn from the pool, a number was assigned to establish anonymity.

The interpretation of results was based on a final sample of 105 students. Data were excluded for numerous victims of the flu and those who marked their Scale in one column only or in a pattern which suggested total guesswork.

Research Design

A pretest-posttest control group design was used for the study; the design follows.

All subjects took the semantic differential attitude test on the first day, as a pretest. The subjects in the first experimental group (A) read five selected stories to themselves as they listened to taped

FIGURE 1

PRETEST-POSTTEST CONTROL GROUP DESIGN (CAMPBELL & STANLEY, 1963, CHAPTER 5) EXTENDED TO SECOND EXPERIMENTAL GROUP

		PRETEST	TREATMENT	POSTTEST
GROUP A	R	0	X_1	0
GROUP B	R	0	X_2	0
GROUP C	R	0		0

R = Random assignment

O = Semantic differential, pre-posttest

X_1 = Exposure to story with discussion

X_2 = Exposure to story without discussion

versions of the same. An oral comprehension check and discussion followed each reading to see if the group reflected understanding of story content. Treatment for Group B was the same (silent reading with taped version) without discussion.

Selections were read on five separate days within a two-week period.

The control group (C) was not exposed to the readings. These students engaged in normal school activities while the experimental groups participated in the study.

All subjects were given the semantic differential as a posttest.

Administration of Scale

The entire study, including the administration of the Scale, was conducted by the investigator.

The instructions for responding to a semantic differential-type test were simplified and clearly defined, because subjects were children. Each group was instructed in the method of making ratings and given an opportunity to practice. The same instructions and practice were given for administration of the Scale as pretest and posttest.

The response positions were labeled and defined for the children on their Scales. A copy of the Scale can be found in Appendix D.

The entire Scale was read orally to each group. Reminders were frequently interjected of the older adult concept being rated and that any point on the scale may be used. Emphasis was placed on children checking the point that best described most older adults for "you."

This procedure was exactly the same for each group.

Analysis of Data

The basis for analysis of data from a semantic differential is the assignment of the numbers 1 through 5 to each point on the continuum between the bipolar scale words. Numerical values assigned to responses were

calculated and summed for individual and group raw scores and mean scores. Numerical scores and response positions were analyzed.

A profile was constructed for mean response ratings by total Ss per group. Group responses to items on pre- and posttests were tabulated for frequency of response change.

The t-test was performed on the pretest scores of males versus females to control for any significant differences between sexes.

A one-way analysis of variance was performed using mean posttest scores to determine if there were any significant differences among the three groups of subjects.

The changes in responses from pre- to posttest were tabulated in contingency table format and the McNemar Test for Change was applied to measure significance of change in responses to individual items between pre- and posttests.

CHAPTER IV

FINDINGS AND DISCUSSION

The purpose of this study was to measure the effects of children's reading stories on their attitudes toward older adults.

A semantic differential was developed to measure the effects as attitude change.

The Scale for the Measurement of Children's Attitudes Toward Older Adults was administered as a pretest. Group A then read and discussed five selected stories, Group B read the five stories and Group C had no contact with the stories. The Scale was again used as a posttest.

All data were analyzed with regard to attitude change as observed in raw scores and mean scores and as changes observed in response positions from pretest to posttest.

Scoring the Scale

The Scale was scored so that a response in position 5 represented the most positive (5 points) and position 1 the most negative (1 point) score values on the five-point scale. Neutrality or equality was represented by position 3 with a score value of 3 points.

Analysis of Raw Scores

An analysis was first made of total raw scores on the pretest for male versus female Ss. The t-test performed on the scores produced a statistical value of .3680 which was not significant at the .05 level. The obtained value was not larger than the critical value for t of 1.980 with 103 degrees of freedom. The null hypothesis of no significant differences between sexes was not rejected.

Analysis of Mean Responses

Mean score values were computed for Ss in each group for pre- and posttest responses. The range of scores within each group appears in Table 1 along with total group mean.

TABLE 1

RANGE OF MEAN SCORE VALUES FOR SUBJECTS IN TREATMENT AND NON TREATMENT GROUPS ON PRETEST AND POSTTEST

	Pretest			Posttest		
Group	Low $\bar{X}$	High $\bar{X}$	Group $\bar{X}$	Low $\bar{X}$	High $\bar{X}$	Group $\bar{X}$
A	2.35	4.05	3.29	2.10	3.90	3.35
B	2.15	4.55	3.11	2.15	4.40	3.20
C	1.70	4.20	3.21	1.80	4.05	3.18

A comparison of the total group means reveals a very high level of agreement among groups on conceptualization of the older adult before, after, with/without treatment. However, the obvious differences in the range of scores for Ss would seem to indicate less agreement by individuals. A mean score of 2.15 for a subject (Low $\bar{X}$, B) on the pretest signifies "a little" negative attitude position-wise on the Scale, whereas 4.55 (High $\bar{X}$, B) on the pretest is a "very" positive attitude as defined by the Scale.

Mean responses for individual scale items were calculated for further comparison between groups from pre-to posttest.

The mean scale values per item for groups on the posttest are represented in Figures 2 and 3. These profiles of ratings illustrate the extent to which the connotative meaning of "older adult" was shared by the groups. As evident for most items, the mean scale ratings were close in value between groups. A similar pattern emerged on the profile of ratings for the pretest.

Differences in mean Scale scores between groups on the posttest ranged from .46 to .72 on five of the items. The small distances between means on the rest of the 15 items would imply parallel profiles, i.e., similar meanings of the concept of "older adults".

FIGURE 2

MEAN ITEM RESPONSE PROFILE FOR ALL GROUPS
ON POSTTEST - ITEMS #1-10

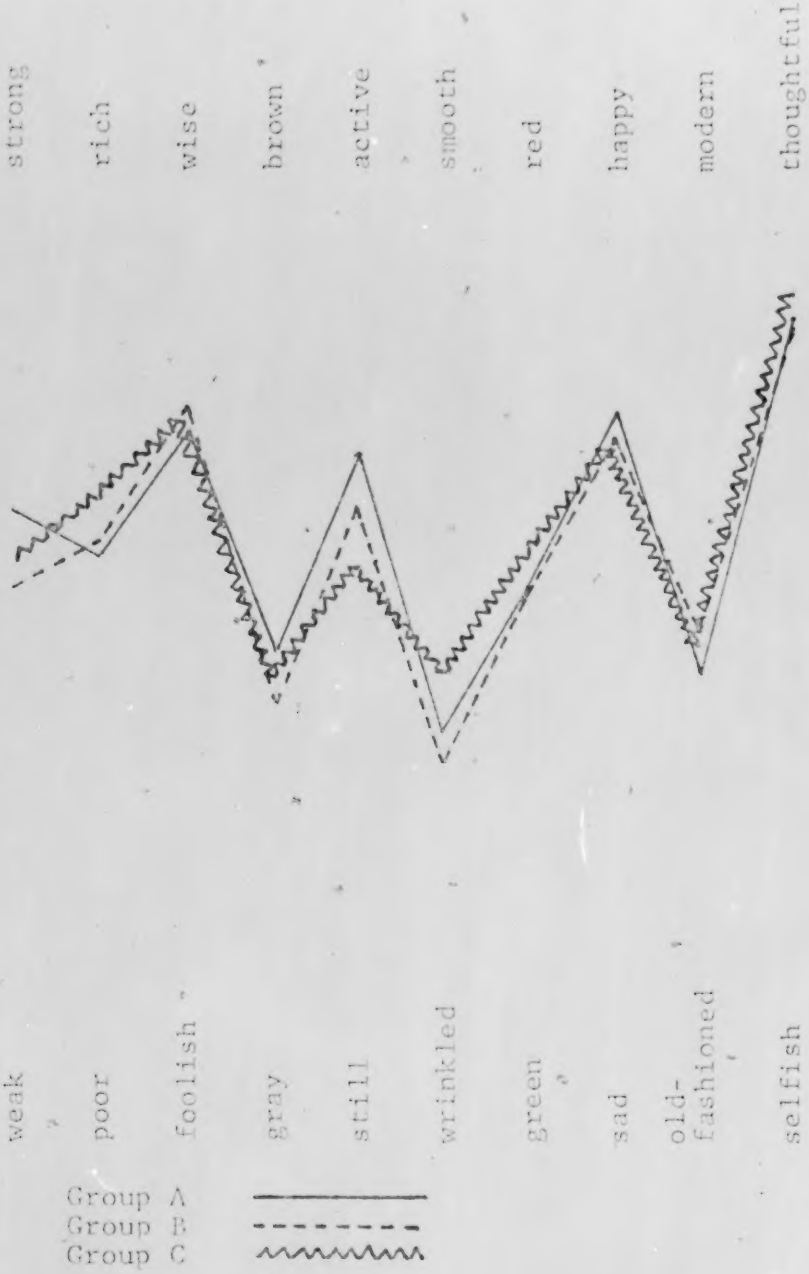

FIGURE 3

MEAN ITEM RESPONSE PROFILE FOR ALL GROUPS
ON POSTTEST - ITEMS #11-20

Mean difference scores from pre- to posttest (Table 2) were .42 and above on these items:

Group A - weak/strong (#1); slow/fast (#11); indoors/outdoors (#16)

Group B - indoors/outdoors (#16)

Group C - indoors/outdoors (#16); idle/busy (#12); sick/well (#15)

This would seem to indicate very little change in responses from pre- to posttest regardless of treatment or non-treatment status of groups. Osgood (1957) considers .50 as significant of change in scale units for group means. Item #16 appears to be significant. The direction of change varied between movement toward positive and negative poles and was not consistent.

The median scores for items do not differ greatly from the mean scale value for each item. The median scores for pre- and posttests are identical for all groups on 73% of the items.

A one-way analysis of variance was performed on posttest data for the two experimental groups and control group to determine any significant difference between groups.

The results appear in Table 3.

TABLE 2

MEAN DIFFERENCE SCORES FOR SCALE ITEMS
BETWEEN PRE- AND POSTTESTS
FOR ALL GROUPS

Item	Group A	Group B	Group C
1	.48	.25	-.05*
2	-.26	.08	.18
3	-.31	.03	.00
4	-.06	-.09	-.06
5	.06	.32	-.31
6	-.23	.00	.26
7	-.05	-.06	.05
8	-.17	-.14	.14
9	-.35	.11	.03
10	.00	-.20	.23
11	.46	.26	.03
12	.11	.35	-.42
13	.15	.21	-.32
14	.14	.06	-.09
15	-.11	.00	-.49
16	.72	.55	-.42
17	.03	.17	-.14
18	.00	.06	.06
19	.17	-.06	.29
20	.28	.28	.26

*Mean declined on the posttest

TABLE 3

ANALYSIS OF VARIANCE PERFORMED ON MEAN POSTTEST SCORES OF TREATMENT AND CONTROL GROUPS

Source of Variation	Sum of Squared Deviations	Degrees of Freedom	Mean Square	Ratio
Among Samples	243.44	2	121.72	
Within Samples	8559.38	102	83.92	1.45
Total	8802.81	104		

Critical value of F (2,102) = 3.09

There was no statistically significant difference between mean posttest scores of treatment and control groups at the $p < .05$ level of significance. The attitude of treatment groups toward "older adults" did not change more than attitudes of the control group, and on this basis the null hypothesis was not rejected.

Analysis of Change in Responses

Although the data indicate no statistically significant difference or change in groups as a result of treatment, additional analysis was made to determine any significance in direction and extent of change in responses from pre- to posttest on individual items.

Subjects from all groups were pooled as one larger, representative sample.

On initial observation of the data in Table 4, the high percentage of "no change" response from pre- to posttest on some items is indicated; the explanation for this trend follows in the discussion section.

The highest percentage of "no change" was for items #7 and 14, neutral items.

Amount of change involving shifts of more than two scale units (14% and 5%) is considered to be small. Osgood (1957) considers a shift of more than 2 scale units as probably significant in change. His theory is based on a 7-point scale. It is possible that the

TABLE 4

PER CENT OF STUDENT RESPONSE CHANGES BY 1, 2, 3, 4 UNITS AND PER CENT OF NO CHANGE

Item	% Change			No Change
	1 Unit	2 Units	3, 4 Units	%
1	30	12	4	44
2	39	4	2	55
3	31	11	4	54
4	34	13	1	50
5	36	14	7	43
6	27	11	2	60
7	19	3	-	78
8	32	7	4	57
9	27	19	7	48
10	20	9	5	66
11	31	15	6	48
12	30	27	3	40
13	33	16	3	48
14	20	10	-	69
15	34	16	3	47
16	22	25	17	36
17	31	15	10	44
18	29	12	8	52
19	35	16	8	40
20	35	17	9	38
	(30%)	(14%)	(5%)	(51%)

significance of shifts would be less than 2 for a 5-point scale.

The McNemar Test for Change, a form of chi-square, was used for statistical analysis of change from pretreatment to posttreatment.

Data was first plotted on a 3 x 3 contingency table using three response position combinations: 1-2, 3, 4-5. Three items were eliminated from analysis. The χ^2 requires that expected frequencies fall between one and five in not more than 20% of the cells which for this study would be two cells off the diagonal of the matrix.

The data for each tabulated item were analyzed by the McNemar formula

$$\chi^2 = \sum_{i>j} \frac{(fij - fji)^2}{(jij + fji)}$$

where the test statistic is distributed as chi-square with (M) = 3 degrees of freedom. The test statistic is rejected as not significant if it exceeds χ^2_3 (.95) or 7.815 and accepted as significant otherwise.

Items where i<j were omitted from analysis according to procedures for using the statistic. "i" represents the number of responses on the posttest and "j" numbers of responses on the pretest.

The data for the McNemar test on 10 items appear in Table 5.

TABLE 5

SIGNIFICANCE OF CHANGE IN RESPONSES FROM PRE- TO POSTTEST USING THE McNEMAR TEST FOR CHANGE

df=3

Item	χ^2	Critical Value
1	4.321	
2	4.870	
5	3.631	
11	4.942	
12	4.296	
13	1.179	
16	5.511	
17	1.141	
19	1.785	
20	4.623	7.815

Critical value of χ^2 not significant for any item at $p \leq .05$ level.

All ten test statistics were rejected as not significant since they did not exceed 7.815 at the $p < .05$ level.

Reliability of the Scale

The reliability of the Scale used in the study was measured by correlating 75 individual posttest and retest scores. The interval of time between the two ratings was 10 days. The Pearson Product Moment Correlation resulted in a coefficient of .755. A high positive correlation was expected since mean difference scores between pre- and posttest were insignificant and the amount of "no change" in response was considerable.

Discussion

The results of the study supported the hypothesis that reading stories about older adults has no significant effect on children's attitudes toward that age group. Some changes in students' responses between pretests and posttests were observed when all subjects were analyzed as one sample of fourth-graders. These changes, however, were not statistically significant.

The analysis in the study also seems to indicate that there are no significant differences in the responses of females versus males to the conceptualization of the older adult.

Several inferences may be made on the basis of the data obtained.

According to DiVesta (1966) and Maltz (1964), the meaning of concepts as measured by the semantic differential becomes securely fashioned in children by second grade and becomes inculcated sometime before the fourth-grade.

Based on the research of DiVesta and Maltz, an assumption was made that a firm concept of the older adult already was held by subjects in fourth-grade. One purpose of this study was to measure the meaning of this concept for fourth-graders. An attempt was made to influence children's conceptions of "older adults" by exposing them to stories with older adult characters. The results of this study conclusively show that the concept of "older adult" held by fourth-graders in this study is resistant to change to a considerable degree.

In studying semantic differential with young children, approximately 6 to 13 years of age, DiVesta (1966) and Long (1968) describe the trend of children's movement toward neutral positions with increasing grade and age levels. The predominance of responses in non-extreme positions such as 2, 3, and 4, including "no change" frequencies, places the conceptualization of "older adult" for subjects in this study in the semantic space away from the poles. Although polarization of

concepts is often used as an indication of affective meaningfulness and strength of response, the investigator agrees with Worthy (1969) who makes a case for the midpoint response (2, 3, 4) as being as concrete, well-anchored and unambiguous as an extreme response.

The lack of a preponderance of extremity response may also be explained by the presence of a neutrality factor in the study. Mean difference scores show little change between pre- and posttest for Ss of either treatment or control groups. Mean scale scores for groups ranged from 3.11 to 3.35, very definitely representing a neutral position in value. Lane (1964) and Golde and Kogan (1959) describe this neutrality in studies of young adults attitudes toward older adults as not extremely unfavorable but not extremely favorable either.

Unlike the third graders of the Hickey (1968) study, many of the Ss in this study were relating to their grandparents who, surprisingly for this age child, in some cases were 62 and older. Statements such as "I'm going to think about my grandmother" were frequently verbalized during pre- and posttesting. One child on both tests responded Scale-wide down the 3 position, prefacing the first response with "I love them both." It may have been difficult for some of these fourth graders to satisfy the incongruity between real feeling and what is "nice" to his/her grandparents. This would

further explain the lack of extreme (negative) responses, safer midpoint responses and a "neutral" profile of the "older adult" concept. Grandparental association may account for the four items with a large percentage of extreme positive responses.

Piaget's developmental concepts of the pre-operational and concrete operational child may be applicable to an explanation of some of the variance observed (Ginsburg, 1969). Since the Ss ranged in ages from 8 to 10 years, their thinking may be characterized by traits of both of Piaget's categories, although pre-operational is usually used to describe ages 4 to 7 and the concrete operational for children ages 8 to 11.

Traits manifested in the preoperational child include centration or focusing on one dimension, on limited amounts of information, i.e., focusing on the grandparent(s) and not generalizing to the group of older adults. Comments such as "I'm going to think of my grandmother only" and "I don't really know people on television" would seem to be spoken by children in the preoperational stage. The concrete operational child, on the other hand, related his grandparents to the total group of older adults.

The thought of the pre-operational child is often static and ignores changes in states; most children asked

why the test was repeated. The concrete operational child, attuned to the changing procedures in the study, commented "I know, you want to see if we changed our answers after the stories." The greater proportion of change in responses may have come from these children.

Conceptualization of "Older Adult" by Fourth-Graders

In addition to the use of the semantic differential to measure change in the Ss, the instrument, like most semantic differentials, provided some definition of the meaning of the concept "older adult" to fourth-graders. It is evident from an observation of the mean posttest profiles, Figures 2 and 3, that a general concept is shared by the fourth-graders.

According to the profile, these children rated the older adult as very wrinkled, thoughtful and people who try "a lot."

Negatively, their ratings produce a picture of older adults that are characterized as being a little old-fashioned, slow and lonely. Positively, the older adult is perceived as a little wise, active, busy and well.

Neutral reactions were predominant for weak-strong, rich-poor, indoors-outdoors, sleep-wake, and rest-working. Children chose the neutral position

when neither word in word-pair choices was adequately descriptive or both were equally descriptive.

CHAPTER V

SUMMARY AND CONCLUSIONS

The purpose of this study was to measure fourth-graders' attitudes toward older adults and observe the effect of exposure to stories featuring older adult characters on students' attitudes toward older adults.

In order to accomplish this, a semantic differential Scale for the Measurement of Children's Attitudes Toward Older Adults was constructed for the study.

The Scale was administered to subjects in three groups: experimental A (N=35), experimental B (N=35) and control C (N=35). Following this administration, experimental Group A was exposed to five stories (reading to themselves and hearing on tape) with older adult characters. This experience was reinforced by experimenter initiated discussion about the older adult character in the story. Posttesting with the Scale followed.

Group B had the same exposure as Group A without the discussions and was subsequently posttested.

Group C, the control group, had no exposure to the stories and was posttested the same time as experimental Groups A and B.

Pretest raw scores were analyzed to uncover any sex variable in responses. No significant difference in responses was found between males and females.

Posttest mean scores of Ssin each group were subjected to a one-way analysis of variance. The F-ratio of 1.45 was not significant at the $p < .05$ level. The null hypothesis of no significant differences between treatment and control groups was accepted.

Further analysis of between-tests attitude change was performed with the McNemar Test for Change, a form of chi-square. No significant differences were found for the 11 Scale items subjected to the statistic.

Conclusions

On the basis of the data obtained in this investigation, it was concluded that reading stories with active older adult characters had no significant effect on the attitudes of fourth-graders toward older adults. Research cited in the Review of the Literature seemed to support the hypothesis that discussion and reaction following stories would effect change in attitudes (Fischer, 1968; Schneyer, 1969). However, subjects who were exposed to the stories, with or without discussion, received mean posttest scores similar to those not exposed to the stories.

It is apparent that the fourth-graders in this study, responding with a minimum of extreme responses and 51% of no change in response, are very definite in their concept of and attitude toward older adults; they seemed resistant to change.

The children's conceptualization of "older adult," according to this study, is not consistent with the concept which emerged in the few studies cited in Chapter II on children's attitudes toward older adults. These studies described negative, stereotyped pictures of the older adult. The writer assumed this same negativeness would be revealed in the responses of Ss in this study. The fourth-graders, however, responded with a description of the older adult that was not extremely positive (favorable) but at least not extremely negative (stereotyped). Perhaps the contrast in research findings can be explained by the difference in type of response technique use, i.e., open-ended in the research cited versus forced-choice in this study. Additional study, substituting a different measurement technique for the semantic differential, might produce disparate findings.

Suggestions for Future Study

Since this study was an application of semantic differentiation to a somewhat unexplored concept with young children, several suggestions for future study

are offered, in addition to that just described.

Some effort at norming data in exploring the connotative meanings of many concepts has been reported; the "older adult" concept has not been included. Normative data on the conceptualization of the older adult over age ranges below and above the 8 to 10 year span represented here, would be informative.

Teachers observed that the response ratings of some children in this study seemed to be related to achievement and reading ability. Research into the intelligence-attitude, reading ability-attitude linkage offer possible avenues for further study. Responses to semantic differentials by high-anxiety children have been correlated with negative ratings toward various concepts.

Research, in the form of content analysis, has explored the image of the older adult in children's literature, not in reading textbooks. From what the writer observed in searching reading texts for stories to use in the study, the older adult is rarely presented in a major active role. Some publishers have issued guidelines for role development of women, minorities, etc. in literature including textbooks but have not concentrated on portraying the older adult more realistically. Perhaps some well-substantiated research

findings on the older adults' image in reading texts would convince writers and publishers to reverse the character portrayal of older adults.

BIBLIOGRAPHY

Annelli, C. An analysis of the representation of the blacks in recommended children's fiction. Unpublished master's thesis, Rutgers University, 1975.

Ansello, E. Agist stereotypes as they appear in children's literature. Unpublished research, University of Maryland Center on Aging, 1976.

Axelrod, S., & Eisdorfer, C. Attitudes toward old people: An empirical analysis of the stimulus-group validity of the Tuckman-Lorge questionnaire. Journal of Gerontlogy, 1961, 16, 75-80.

Barron, M. L. Minority group characteristics of the aged in American society. Journal of Gerontology, 1953, 8, 477-482.

Britton, J., & Britton, L. Children's responses to pictures in determining age-size correlations. Proceedings of the 77th Annual Convention of the American Psychological Association, 1969, 4, 715-716. (Summary)

Calhoun, N. Stereotypes of old age in two samples. Paper presented at the meeting of the Midwestern Psychological Association, Detroit, November 1963.

Campbell, D., & Stanley, J. Experimental and quasi-experimental designs for research and teaching. In N. Gage (Ed.), Handbook of Research on Teaching. Chicago: Rand McNally, 1963.

Carroll, J. American heritage word frequency book. New York: Houghton-Mifflin, 1971.

Cleary, B. Grandpa and the Tin Lizzie. In All sorts of things, Ginn Reading 360, Level 10. Boston: Ginn, 1969.

Clymer, T., & Neff, P. (Eds.). The mystery of the suitcase. In How it is nowadays, Ginn 360 Readings, Level 8. Boston: Ginn, 1969.

DiVesta, F. J. A developmental study of the semantic structures of children. Journal of Verbal Learning and Verbal Behavior, 1966, 5, 249-259.

DiVesta, F. J. Normative study of 220 concepts rated on the semantic differential by children in grades 2 through 7. Journal of Genetic Psychology, 1966, 109, 205-229.

DiVesta, F., & Dick, W. The test-retest reliability of children's ratings on the s-d. Educational and Psychological Measurement, 1966, 26, 605-616.

Drake, J. T. The aged in American society. New York: Ronald, 1958.

Fisher, F. Influences of reading and discussion on the attitudes of 5th graders toward American Indians. Journal of Educational Research, 1965, 62(1), 130-134.

Frasher, R., & Walker, A. Sex roles in early reading textbooks. Reading Teacher, 1972, 25(8), 741-749.

Gage, N. Handbook of research on teaching. Chicago: Rand McNally, 1963.

Ginsburg, H., & Opper, S. Piaget's theory of intellectual development, an introduction. Englewood Cliffs, N.J.: Prentice-Hall, 1969.

Golde, P., & Kogan, N. A sentence completion procedure for assessing attitudes toward old people. Journal of Gerontology, 1959, 14, 355-363.

Grabowski, S., & Mason, W. (Eds.). Education for aging. Syracuse, N.Y.: ERIC Clearinghouse on Adult Education, 1972.

Graebner, D. A decade of sexism in readers. Reading Teacher, 1972, 26(1), 52-58.

Greet, W., Jenkins, W., & Schiller, A. In other words, a beginning thesaurus. New York: Scott-Foresman, 1968.

Hickey, T., Hickey, L., & Kalish, R. Children's perceptions of the elderly. Journal of Genetic Psychology, 1968, 112, 227-235.

Hickey, T., & Kalish, R. Young peoples perceptions of adults. Journal of Gerontology, 1968, 23, 215-219.

Jackson, E. Effects of reading upon attitudes toward the Negro race. Library Quarterly, 1944, 14, 47-54.

Jacobs, H. L. Education for aging in elementary and secondary school systems. In S. Grabowski & W. Mason (Eds.), Education for aging. Syracuse, N.Y.: ERIC Clearinghouse on Adult Education, 1972.

Jenkins, J., Russell, W., & Suci, J. An atlas of semantic profiles for 360 words. American Journal of Psychology, 1958, 71, 688-699.

Kahana, B. Grandparenthood from the perspective of the developing grandchild. Paper presented at the 21st meeting of Gerontology Society, New York, May 1968.

Kalish, R. The old and the new as generation gap allies. Gerontologist, 1969, 9(2), 83-89.

Kantrowitz, M. Maxie. In People need people, Holt Basic Reading System, Level 9. New York: Holt, 1973.

Kastenbaum, R., & Durkee, N. Elderly people view old age. In R. Kastenbaum, New thoughts on old age. New York: Springer, 1964. (a)

Kastenbaum, R., & Durkee, N. Young people view old age. In R. Kastenbaum, New thoughts on old age. New York: Springer, 1964. (b)

Kimmel, E. Can children's books change children's values. Educational Leadership, 1970, 28, 209-214.

Kogan, N. Attitudes toward old people: The development of a scale. Journal of Abnormal and Social Psychology, 1961, 62, 44-54.

Kogan, N., & Shelton, F. Beliefs about old people: A comparative study of older and younger samples. Journal of Genetic Psychology, 1962, 100, 93-111.

Kutner, B. Five hundred over sixty. New York: Russell Sage Foundation, 1956.

Lane, B. Attitudes of youth toward the aged. Journal of Marriage and the Family, 1964, 26, 229-231.

Long, B., Henderson, E., & Ziller, R. Self-ratings on semantic differential content versus response set. Child Development, 1968, 39, 647-656.

Looft, W. Children's judgments of age. Child Development, 1971, 42, 1282-1284.

McTavish, D. Perceptions of old people: A review of research methodologies and findings. Gerontologist, 1971, 11(4), 90-108.

Madian, J. Beautiful junk. In Doorways, Scott Foresman Reading Systems, Level 14. Chicago: Scott Foresman, 1972.

Maguire, T. Semantic differential methodology for the structuring of attitudes. American Educational Research Journal, 1973, 10, 295-306.

Maitland, A. The secret of the sheet. In Marvelous machines, Scott Foresman Reading Systems, Level II. Chicago: Scott Foresman, 1971.

Maltz, H. Ontogenetic change in the meaning of concepts as measured by the s-d. Child Development, 1963, 34, 667-674.

Neill, N. The effects of stories on responses of first grade children toward fear of the dark (Doctoral dissertation, University of California, 1969). Dissertation Abstracts International, 1970, 30, 1514A-1515A. (University Microfilms No. 70-17, 480)

Oles, H. Semantic differential for third through fifth grade students. Psychological Reports, 1973, 33, 24-26.

Oliver, L. Women in aprons: The female stereotype in children's literature. Elementary School Journal, 1974, 74, 253-263.

Osgood, C., Suci, G., & Tannenbaum, P. The measurement of meaning. Urbana: University of Illinois Press, 1957.

Perlin, S., & Butler, R. N. Psychiatric aspects of adaptation to the aging experience. In Human aging: Biological and behavioral aspects. Maryland: Public Health Service Publication No. 986, 1962, 143-158.

Remmers, H. Rating methods in research on teaching. In N. Gage, Handbook of research on teaching. Chicago: Rand McNally, 1963.

Rosencranz, H., & McNevin, T. A factor analysis of attitudes toward the aged. Gerontologist, 1969, 9(1), 55-59.

Samuels, S. Effects of pictures on learning to read, comprehension and attitudes. Review of Educational Research, 1970, 40, 397-407.

Schneyer, W. Effects of reading on children's attitudes. Reading Teacher, 1969, 23, 49-51, 57.

Seefeldt, C., & Jantz, R. Children's attitudes toward the elderly. Unpublished research, University of Maryland Center on Aging, 1975.

Selltiz, C., Jahoda, M., Deutsch, M., & Cook, S. Research methods in social relations. New York: Holt, 1967.

Seltzer, M., & Atchley, R. The concept of old: Changing attitudes and stereotypes. Gerontologist, 1971, 11(3), 226-230.

Tuckman, J., & Lorge, I. Attitudes toward old people. Journal of Social Psychology, 1953, 37, 249-260.

Waite, R. Further attempts to integrate and urbanize first grade reading textbooks: A research study. Journal of Negro Education, 1968, 37, 62-69.

Walker, P. The effects of hearing selected children's stories that portray blacks in a favorable manner on the racial attitudes of groups of black and white kindergarten children. (Doctoral dissertation, University of Kentucky, 1971). Dissertation Abstracts International, 1972, 32, 5051A-5052A. (University Microfilms No. 72-9425)

Webster, J. Using books to reduce the fears of first-grade children. Reading Teacher, 1961, 14, 159-162.

Williams, W. A study of the use of the semantic differential by fifth grade children from different socioeconomic groups. Journal of Psychology, 1972, 81, 343-350.

Worthy, M. Note on scoring midpoint responses in extreme response-style scores. Psychological Reports, 1969, 24, 189-190.

Zola, I. Feelings about age among older people. Journal of Gerontology, 1962, 17, 65-68.

APPENDIX A

ORIGINAL SCALE FOR THE MEASUREMENT OF CHILDREN'S ATTITUDES TOWARD OLDER ADULTS, USED IN PILOT STUDY

ATTITUDE SCALE

We would like to find out some of your ideas about people.

WHAT TO DO: On each line below there are two words that seem to be the opposite of each other. There are five lines between.

THINK about the people you know who are about 65 years old. PICK one of the two words on each line that tells about most people who are 65.

PUT an "X" on the line that will show how strongly you feel. The closer you put an "X" to the word you picked the stronger is your idea. The middle line is farthest away from both sides.

You will try the first one with your teacher.

****

65 YEAR-OLD PEOPLE

1	Loud	_____	_____	_____	_____	_____ Quiet
2	Large	_____	_____	_____	_____	_____ Small
3	Mean	_____	_____	_____	_____	_____ Kind
4	Polite	_____	_____	_____	_____	_____ Rude
5	Old	_____	_____	_____	_____	_____ New
6	Smooth	_____	_____	_____	_____	_____ Wrinkled
7	Weak	_____	_____	_____	_____	_____ Strong
8	Toothless	_____	_____	_____	_____	_____ Toothy
9	Good	_____	_____	_____	_____	_____ Bad
10	Friendly	_____	_____	_____	_____	_____ Unfriendly
11	Rich	_____	_____	_____	_____	_____ Poor
12	Fair	_____	_____	_____	_____	_____ Dishonest

65 YEAR-OLD PEOPLE

13	Foolish	_____	_____	_____	_____	_____	Wise
14	Brown	_____	_____	_____	_____	_____	Gray
15	Clean	_____	_____	_____	_____	_____	Dirty
16	Active	_____	_____	_____	_____	_____	Still
17	Cold	_____	_____	_____	_____	_____	Warm
18	Sad	_____	_____	_____	_____	_____	Happy
19	Pleasant	_____	_____	_____	_____	_____	Grouchy
20	Stubborn	_____	_____	_____	_____	_____	Willing
21	Honest	_____	_____	_____	_____	_____	Unfair
22	Smart	_____	_____	_____	_____	_____	Silly
23	Feeble	_____	_____	_____	_____	_____	Strong
24	Hearing	_____	_____	_____	_____	_____	Deaf
25	High	_____	_____	_____	_____	_____	Low
26	Restless	_____	_____	_____	_____	_____	Calm
27	Nice	_____	_____	_____	_____	_____	Cranky
28	Selfish	_____	_____	_____	_____	_____	Thoughtful
29	Modern	_____	_____	_____	_____	_____	Old-fashioned
30	Blind	_____	_____	_____	_____	_____	Seeing
31	Useless	_____	_____	_____	_____	_____	Useful
32	Red	_____	_____	_____	_____	_____	Green
33	Protected	_____	_____	_____	_____	_____	Insecure
34	Cheerful	_____	_____	_____	_____	_____	Grumpy
35	Childish	_____	_____	_____	_____	_____	Grown-up
36	Slow	_____	_____	_____	_____	_____	Fast
37	Hungry	_____	_____	_____	_____	_____	Full

65 YEAR-OLD PEOPLE

38	Busy	_____	_____	_____	_____	_____	Idle
39	Nervous	_____	_____	_____	_____	_____	Relaxed
40	Safe	_____	_____	_____	_____	_____	Afraid
41	Bossy	_____	_____	_____	_____	_____	Shy
42	Easy	_____	_____	_____	_____	_____	Hard
43	Healthy	_____	_____	_____	_____	_____	Infected
44	Lucky	_____	_____	_____	_____	_____	Unlucky
45	Popular	_____	_____	_____	_____	_____	Lonely
46	Talkative	_____	_____	_____	_____	_____	Quiet
47	Fat	_____	_____	_____	_____	_____	Thin
48	Sick	_____	_____	_____	_____	_____	Well
49	Heavy	_____	_____	_____	_____	_____	Light
50	Slow	_____	_____	_____	_____	_____	Fast
51	Comfortable	_____	_____	_____	_____	_____	Uneasy
52	Family	_____	_____	_____	_____	_____	Alone
53	Past	_____	_____	_____	_____	_____	Future
54	Money	_____	_____	_____	_____	_____	Poverty
55	Today	_____	_____	_____	_____	_____	Yesterday
56	Sports	_____	_____	_____	_____	_____	Television
57	Up	_____	_____	_____	_____	_____	Down
58	Outdoors	_____	_____	_____	_____	_____	Indoors
59	Rocker	_____	_____	_____	_____	_____	Chair
60	Noise	_____	_____	_____	_____	_____	Peace
61	Life	_____	_____	_____	_____	_____	Death

65 YEAR-OLD PEOPLE

62	Save	_____	_____	_____	_____	_____ Waste
63	Forget	_____	_____	_____	_____	_____ Remember
64	Sleep	_____	_____	_____	_____	_____ Wake
65	Cry	_____	_____	_____	_____	_____ Laugh
66	Round	_____	_____	_____	_____	_____ Square
67	Run	_____	_____	_____	_____	_____ Limp
68	Try	_____	_____	_____	_____	_____ Quit
69	Working	_____	_____	_____	_____	_____ Resting
70	Keep	_____	_____	_____	_____	_____ Throw (out)
71	Trust	_____	_____	_____	_____	_____ Suspect

APPENDIX B

STORIES USED WITH EXPERIMENTAL GROUPS A AND B

ACKNOWLEDGMENTS

Grateful acknowledgment is made to the following authors and publishers for permission to use copyrighted materials:

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The following stories used with Experimental Groups A and B, were extracted from the reading text and series cited:

Cleary, B. Grandpa and the Tin Lizzie. In All sorts of things, Level 10, Reading 360 Series, Ginn, 1969.

Emily's Grandpa had made up his mind that he was going to keep up with the times and buy an automobile, a model T-Ford. His first adventure in the tin Lizzie was shared with his granddaughter. The car had mechanical difficulty and the ride became an exciting and thrilling adventure for Emily who had a difficult time keeping up with Grandpa and the tin Lizzie.

Clymer, T., & Neff, P., eds. The mystery of the suitcase. In How it is nowadays, Level 8, Reading 360 Series, Ginn, 1969.

Charles and Mrs. Emory were neighbors and good friends. Every Saturday, Charles carried Mrs. Emory's suitcase to and from the bus stop. When Charles went to the bus stop one Saturday evening, Mrs. Emory did not come. As a result of his concern for his friend Charles found out where Mrs. Emory had been and the mystery of why she carried the suitcase with her every Saturday.

Kantrowitz, M. Who needs Maxie. In People need people, Level 9, Holt Basic Reading System, Holt, 1973.

Maxie lived alone with a bird and cat for company. All the people in the brownstone had become dependent on Maxie's daily schedule to tell time for their activities. One Tuesday Maxie feels alone and unneeded and stays in bed. Her concerned friends, upset by her departure from daily habits, go to see Maxie and impress on her how much they need her.

Madian, J. Beautiful junk, a story of the Watts Towers. In Doorways, Level 14, Scott Foresman Reading Systems, Scott Foresman, 1972.

Charlie discovers an old man collecting junk. At first his attitude is one of ridicule toward the old man. The old man, however, helps Charlie develop an appreciation for the useless junk by showing Charlie how he creates beauty from ugliness. The Watts Towers introduced in the story are still in existence in Los Angeles, California.

Maitland, A. The secret of the shed. In Marvelous machines, Level 11, Scott Foresman Reading Systems, Scott Foresman, 1971.

Tom and Jane's next door neighbor, Mr. Marble, was an inventor. One day they decide to explore his shed that had a sign in front marked "SECRET." Once inside, they stumble upon an invention called Dabchick which takes them on an exciting adventure with Mr. Marble who is unaware they are inside the machine.

APPENDIX C

DISCUSSION QUESTIONS USED WITH GROUP A

FOLLOWING EACH STORY READING

DISCUSSION

All of the questions below should be discussed. They do not have to be discussed separately; one may lead into discussion of another.

1. Was _____ an important character in the story? Why?

2. How old do you think _____ is in this story? Do you know people who are the same age?

3. What kind of "job" did _____ have in the story? Was the job important? How?

4. Was the job different from most jobs? How?

5. Did _____ get paid for the job he did? Should he?

6. Did _____ seem to enjoy his job? How do you know that?

7. Do you think _____ would enjoy doing nothing--that is, not working at the "job" in the story?

8. Was _____ friends with other characters in the story? Why? Did anything happen in the story that showed they like being friends with _____?

9. Would you like to be friends with _____? Why?

APPENDIX D

SCALE FOR THE MEASUREMENT OF CHILDREN'S ATTITUDES TOWARD OLDER ADULTS USED AS PRETEST

SCALE FOR THE MEASUREMENT OF CHILDREN'S ATTITUDES TOWARD OLDER ADULTS

This scale will help us find out some of your ideas about older people.

WHAT TO DO: THINK about people who are older, about 65 years old and older. THINK about most older persons not just one or two. You should keep in mind most older people as you make your choices on the scale.

HOW TO CHECK: On each line below, there are two words that seem to be the opposite of each other. There are five lines between each of the two words.

Pick one of the two words to describe most older people. Then place an "X" on the line that tells best, how you feel. The closer you put the "X" to the word you picked, the stronger is your feeling. The middle line is farthest away from both words; an "X" on that line means neither word describes older people.

You will try the first one with the teacher.

****

Loud	_____	_____	_____	_____	_____	Quiet
	Very:	A little:	Neither:	A little:	Very:	

****

REMEMBER	VERY:	A LITTLE:	NEITHER:	A LITTLE:	VERY:	
1 weak	_____	_____	_____	_____	_____	strong
2 poor	_____	_____	_____	_____	_____	rich
3 wise	_____	_____	_____	_____	_____	foolish
4 brown	_____	_____	_____	_____	_____	gray
5 still	_____	_____	_____	_____	_____	active

REMEMBER		VERY:	A LITTLE:	NEITHER:	A LITTLE:	VERY:	
6	wrinkled	_____	_____	_____	_____	_____	smooth
7	green	_____	_____	_____	_____	_____	red
8	happy	_____	_____	_____	_____	_____	sad
9	old-fashioned	_____	_____	_____	_____	_____	modern
10	selfish	_____	_____	_____	_____	_____	thoughtful
11	fast	_____	_____	_____	_____	_____	slow
12	busy	_____	_____	_____	_____	_____	idle
13	lonely	_____	_____	_____	_____	_____	popular
14	round	_____	_____	_____	_____	_____	square
15	sick	_____	_____	_____	_____	_____	well
16	outdoors	_____	_____	_____	_____	_____	indoors
17	forget	_____	_____	_____	_____	_____	remember
18	try	_____	_____	_____	_____	_____	quit
19	sleep	_____	_____	_____	_____	_____	wake
20	working	_____	_____	_____	_____	_____	resting